

REMARKS

The Office Action dated April 9, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-30 are pending and under consideration, of which claims 1, 29, and 30 are dependent. By this Response, claims 3, 13, 14, and 21-24 have been amended to improve the clarity of the features recited therein. No new matter has been added.

On page 2 of the Office Action, claims 1-3, 5, 8, 13-14, 15-16, 21, and 23-24 were rejected under 35 U.S.C. §112, 2nd paragraph, as failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

With respect to claim 1, the Office Action contended that the term “applying one of a plurality of available methods” is a relevant term which renders the scope of the claim indefinite. In response, Applicant respectfully asserts that there is adequate definition within the specification to provide information to the skilled man for ascertaining the scope of the invention from the wording of the claim. Support for this term can be found on page 9 of the specification, for example, where step 2 is defined as “calculation of confidence region for this location estimate” followed by a brief description of a confidence region; on page 13 under the heading “stage 2” where it is explained how the CRCAList is created. Further, on page 18 of the specification, under the heading “Confidence Region Calculation”, there is a description of the available

method for calculating a region of around the estimated location in which the terminal could be located.

With respect to claim 2, the term “multiple sources of information” was considered by the Office Action as a relative term. In response, Applicant respectfully directs the Examiner’s attention to page 10 as an example of support for the claimed feature. It is stated in the specification that LECAs calculate a location estimate by implementing one of three available location methods given as examples also on page 14 under the LECAs heading.

With respect to the rejection of claim 3, Applicant notes that the rejection appears to be directed to claim 4 wherein the terms “simultaneously” and “respective” can be found. Further, Applicant respectfully submits that the claim language is clear and definite in that it is possible for the mobile terminal to be served by multiple cells at the same time and with each source of the information coming from each of those cells serving the mobile terminal. Still further, Applicant has amended claim 3 to recite “communications network” to further clarify which network is being referred to.

With respect to the rejection of claim 5, the same arguments in relation to claim 1 apply the rejection of claim 5.

With respect to the rejection of claim 8, the Examiner contended that the term “selecting a variable” is indefinite. In response, Applicant respectfully asserts that the specification provides full support for this term, specifically on the bottom of page 12 of

the specification where the preferred shape type “PS” is defined as well as the method and shapes allowed “MASA”.

With respect to the rejection of claim 13, Applicant has amended the claim, as shown above, to correct a typographical error by amending “depending” to “being dependent”

With respect to the rejection of claim 14, Applicant has amended the claim to replace “can be” with “is”. Further, Applicant respectfully directs the Examiner’s attention to page 14 of the specification where it is stated that “only the CRCAs that are allowed” to be used according to the method and shapes of the allowed list. Applicant respectfully asserts that that there is support in the specification for the claimed feature, and that the claim language is clear and definite with the amendment made to delete “can be”.

With respect to the rejection of claim 16, Applicant respectfully asserts that the term “around” used in claim 16 would be understood by the skilled man to mean the immediate vicinity of the estimated location.

With respect to the rejection of claims 21, 23 and 24, Applicant has amended the claims to delete “assumes” and “assumed”. The terms “treated as being” or “treats” have been added to replace “assumed” and “assumes”.

In view of the amendments and arguments set forth above, Applicant respectfully requests entry of the above-mentioned claim amendments and reconsideration and

withdrawal of the pending §112, 2nd paragraph, rejection of claims 1-3, 5, 8, 13-14, 15-16, 21, and 23-24.

On page 4 of the Office Action, claims 1-5, 7-9, and 11-30 were rejected under 35 U.S.C. §102(b) as being anticipated by Fitch et al. (U.S. Patent No. 6,321,092 – hereinafter Fitch ‘092). The Office Action contended that Fitch ‘092 describes all off the claimed features of the rejected claims. As discussed below, the present invention is directed to subject matter which is neither disclosed nor suggested in the cited prior art.

Independent claim 1, upon which claims 2-28 are dependent, is directed to a method for locating a mobile terminal in a communications network. The method includes estimating a location of the mobile terminal, and applying one of a plurality of available methods to calculate a region around the estimated location in which the terminal could be located.

Independent claim 29 is directed to a location module apparatus arranged to calculate the location of a mobile terminal in a communications network. The location module includes means for estimating a location of the mobile terminal, and means for calculating a region around the estimated location in which the mobile terminal could be located.

Independent claim 30 is directed to a method for locating a mobile terminal in a communications network. The method includes applying one of a plurality of available methods to estimate a location of the mobile terminal, and applying one of a plurality of

available methods to calculate a region around the estimated location in which the mobile terminal could be located.

Applicant respectfully asserts that Fitch '092 fails to describe all of the claimed features in the rejected claims.

Fitch '092 generally shows a multiple input data management system for wireless location based applications in which the location of a wireless station is geographically depicted along with an uncertainty region. Fitch '092 does not describe or suggest applying one of a plurality of available methods in a step of calculating a region around the estimated location of the terminal as recited in independent claims 1 and 30, or means for calculating a region around the estimated location in which the mobile terminal could be located, as recited in independent claim 29.

Applicant respectfully asserts that, in Fitch '092, once the location is estimated, an uncertainty region is merely an area produced by the inaccuracies associated with the type of Location Finding Equipment (LFE) used, as described in column 8, lines 13-14 of Fitch '092. Further, these areas can be seen in Figs. 3a to 3e of Fitch '092 where the uncertainty region is represented by simply mapping out an area corresponding to a range of inaccuracy associated with the information used to determine a location. Applicant respectfully submits that there is no disclosure or suggestion in Fitch '092 of a plurality of available methods. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §102(b) rejection of claims 1-5, 7-9, and 11-31 over Fitch '092.

On page 18 of the Office Action, claims 1, 6, and 10 were rejected under 35 U.S.C. §102(b) as being anticipated by Fitch et al. (U.S. Patent No. 6,212,392 – hereinafter Fitch ‘392). The Office Action contended that Fitch ‘392 describes all of the claimed features of claims 1, 6, and 10. As discussed below, the present invention is directed to subject matter which is neither disclosed nor suggested in the cited prior art.

Fitch ‘392 generally describes that the uncertainty region can be calculated from the associated inaccuracy of the location information, thereby providing the reader with a method for ascertaining the accuracy level for which a location can be estimated. However, Applicant respectfully asserts that there is no suggestion or motivation to modify Fitch ‘392 to apply a plurality of methods to the calculation of an uncertainty region associated with an estimated location.

Further, Applicant respectfully asserts that there is no disclosure of the use of other methods to calculate an uncertainty region or any indication of the use of a plurality of methods would be advantageous in any way in Fitch ‘392. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §102(b) rejection of claims 1, 6, and 10 over Fitch ‘392.

On page 19 of the Office Action, claim 1 was rejected under 35 U.S.C. §102(b) as being anticipated by Larsson et al. (U.S. Patent No. 6,282,427 – hereinafter Larsson). The Office Action contended that Larsson describes all of the features of claim 1. As discussed below, the present invention is directed to subject matter which is neither disclosed nor suggested in the cited prior art.

Larsson generally describes a selection of location measurement units for determining the position of a mobile communication station. That is, Larsson describes which BTSs are serving the user equipment and works out the area that the BTSs cover. However, Larsson does not calculate a region around the estimated location. In fact, Applicant respectfully asserts that Larsson does the opposite in that Larsson works out the middle of the estimated location. Larsson then uses this estimated central location to work out which location measurement units (LMU) are closest to that middle point. Therefore, Larsson does not describe or suggest all of the features recited in claim 1 of the present invention.

In other words, Larsson describes determining what BTSs are serving the user equipment and then determining the middle of that area, as opposed to an embodiment of the present invention where a location is estimated and then the area surrounding that estimated location is calculated using a plurality of methods. That is, Larsson teaches away from Applicant's invention. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §102(b) rejection of claim 1 over Larsson.

As discussed above, Fitch '092, Fitch '392, and Larsson each fails to teach, disclose, or suggest all of the claimed features as recited in the pending claims. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §102(b) rejections over Fitch '092, Fitch '392, and Larsson.

In view of the above, Applicant respectfully submits that each of the claims 1-30_ recites subject matter which neither disclosed nor suggested in the cited reference to Fitch '092, Fitch '392, and Larsson.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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